Washington Aviation System Plan Update

2004-2005

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The Washington System Plan Update is an ongoing process that addresses the future of aviation in the state.

System Plan Aviation Update -- Work Group Objectives

1) Update the Aviation System Plan by developing a functional classification system.
   - Establish categories of airports based on the type and function.
   - Provide a balanced combination of solutions to meet local, regional and state needs.
2) Identify Airports of Statewide Significance for the Washington Transportation Plan (WTP) update.
   - Certain transportation issues and facilities are vital to the statewide economy and cross-state mobility of people and goods.
3) Forward Study Group recommendations and other aviation system plan components to Regional Transportation Planning Organizations and Metropolitan Planning Organizations for their consideration and recommendation to the Washington Transportation Commission

State Statutory Authority

Chapter 36.70 and 36.70A RCW – land use and transportation planning responsibilities.

Chapter 47.68 RCW – general overall provisions governing Aeronautics in the State.

Chapter 47.80 RCW – establishment of the regional transportation system planning process to facilitate cooperation and coordinated planning among state and local jurisdictions.

Chapter 47.06 RCW – establishes statewide transportation planning efforts in the state. Certain transportation issues and facilities cross local and regional boundaries and are vital to the statewide economy and the cross-state mobility of people and goods.

Chapter 47.68 RCW – authorizes WSDOT Aviation to develop regulations to promote aviation within the state, develop the statewide system of airports in cooperation with municipalities of this state and others engaged in aeronautics, and cooperate with the federal authorities in the development of a national system of civil aviation and aeronautical.

WHAT IS THE FUTURE OF AVIATION IN WASHINGTON?

The beginning of the 21st Century marked a new and exciting era for aviation in Washington. Aviation is changing our sense of mobility, altering our economy, and shrinking our entire concept of the world. Using the same curiosity and passion that Orville and Wilbur Wright possessed, the state must position itself to further aviation and capitalize on the global economy. This raises several important questions that need to be answered:

- How is the aviation system functioning today as part of the transportation system?
- What are the trends in aviation?
- Is the aviation system designed to meet rapid changes in technology and transportation demand?
- What aviation issues will Washington need to address to prepare for the future in a global economy?
- How will Washington address the capital needs to meet the demands in aviation?

I. The Beginnings of Aviation in Washington State

Aviation in Washington began as a mix of self-help and pioneer spirit. Airport construction and operation still remains an activity of local government and private interests. State government entered into airport activities in 1919 but only to authorize and validate, after the fact, county and city construction and operation. State authorizing statutes slowly developed over the following 30 years and in 1941, the Washington State Legislature adopted the Municipal Airports Act (Chapter 14.07 RCW).

The federal government also encouraged civil aviation by passing the Air Commerce Act in 1926, which sponsored depression-era airport construction in the 1930s. The Act established the Civil Aeronautics Administration, a precursor to the Federal Aviation Administration (FAA), in 1938. Military necessities, sparked by WWII, led to the take over and expansion of some of the smaller airports in the state. The military also built many new airports. By the 1940s and 1950s, a majority of these airports were returned to local governments. Post-war planning also helped to shape the aviation system. As aviation technology became increasingly advanced, it was used more as an instrument for building a strong national economy.

Legislation

In 1945, the Washington State Legislature significantly expanded the 1941 Municipal Airport Act. The act confirmed the broad powers of cities, counties, ports, county airport districts and joint operating agreements between jurisdictions in terms of

acquisition, operation and protection of airports. This authority remains essentially unaltered and is the basis on which a majority of airports operate today.

In 1947, the state created the Aeronautics Commission, which is known as Washington State Department of Transportation (WSDOT) Aviation. The Commission was to perform state functions in air transportation in cooperation with federal authorities, local governments and agencies in the state. Its major functions were to encourage the development of an adequate system of public use airports implemented through local governments, promote aviation safety, and airmark towns and cities.

One of the founding goals of the Commission was to develop a safe system of public use airports in Washington. As a way to promote safety, the Commission used federal aid to construct seven emergency airports. These emergency airports were intended to comprise a system of mountain emergency strips strategically located around the state.

The Need For an Aviation System Plan Identified in the 70s

In 1970, the FAA began funding the state airport system planning effort, which is now referred to as the Washington Aviation System Plan. Washington State's first plan was completed in 1973 and has undergone periodic updates.

The system plan provides the overall guidance for advancing the aviation system throughout the state. System planning determines the extent, type, location and timing of airport development needed in the state. The goal is to establish a viable, balanced and integrated system of airports. Generally, airport system planning at the state level lies between FAA's national planning, as documented in the National Plan of Integrated Airport Systems (NPIAS), and individual airport master planning by local agencies. Information in local airport plans feeds into the state aviation system plan, which is then transferred up to the federal NPIAS.

II. What is Washington's Transportation System?

During the late 1980's, significant new transportation challenges were facing the citizens of Washington State. To address these issues the Washington State Legislature adopted legislation and initiated several commission reports in 1990. These reports were intended to address a statewide integrated transportation system, stimulate statewide economic development, mitigate negative environmental impacts on communities, and advance the state's competitive position in national and international trade.

Regional Transportation Planning Organizations (RTPO) Have a Key Role in the Transportation System

Regional Transportation Planning Organizations (RTPOs) were established by the state legislature in 1990 to promote transportation planning solutions for local

communities, regions and the state. The program creates a formal mechanism for local jurisdictions to coordinate transportation systems for regional transportation facilities across jurisdictional boundaries. It is also a means to improve coordination between jurisdictions and foster the local decision-making process. The Metropolitan Planning Organizations (MPOs) are similar to RTPOs except they were established by federal legislation for metropolitan areas. Regional and metropolitan transportation plans are also funneled into the Washington Transportation Plan (WTP) process to support statewide interest in the transportation system and funding options.

Currently, there are fifteen MPO/RTPO within the state. San Juan County is the only county within the state that is not represented by an MPO/RTPO. The number, type and function of airports within each of the MPO/RTPO vary considerably. The Puget Sound Area RTPO has the most public use airports with a total of twenty-five, while the Lewis-Clark Valley MPO has one.

Each MPO/RTPO is required to include an aviation component within its regional transportation plan. The aviation component should include types and function of airports, facility inventory, airport deficiencies, operational data, ground access links, freight mobility, intermodal connections, capital facility needs and other similar attributes.

The Air Transportation Commission Defines the State's Responsibilities

In 1993, the Air Transportation Commission (AIRTRAC) was responsible for addressing aviation interests in the state and provided final recommendations to the state legislature. The final recommendations related to: 1) the level of state responsibilities, 2) air transportation capacity needs, 3) integrating air and other modes of travel, 4) air transportation and economic development, 5) environmental mitigation. AIRTRAC's recommendations culminated into two House bills that were not forwarded into law.

In 1993, the Washington State Transportation Commission adopted Resolution 477 that recognized the substantial technical research and analysis generated through the AIRTRAC process and the final report and policy recommendations to be in the state's best interest. The proposed program was envisioned to foster the integration of air and surface transportation, and called for a well-defined state role in aviation to ensure state leadership in providing airports of statewide significance. Furthermore, it added that the air transportation system of statewide significant airports meet the need of Washington's citizens after the year 2000.

Statewide Air Transportation Planning and Investment Program Defined

The Transportation Commission Resolution 477 identified a seven-part implementation program that recognized the importance of working within the framework of the Washington State Growth Management. A summary of Resolution 477 is as follows:

Part One	Development of a state airport system plan that establishes necessary criteria and a functional classification system compatible with Federal requirements to designate airports of statewide significance and an air transportation system of statewide significance.
Part Two	Ensure regional transportation planning and local comprehensive planning address transportation issues and needs identified in the state aviation system plan. The guidelines would also address coordination with local comprehensive plans, adjacent zoning to airports, and zoning compatibility with airports. WSDOT would provide technical assistance to regional and local agencies on air transportation planning.
Part Three	The Transportation Commission will ensure concurrent environmental mitigation with airport expansion projects at airports of statewide significance.
Part Four	When the FAA and the Transportation Commission approves the aviation system plan and when the Secretary of Transportation finds that regional, local or other action threaten the implementation of the system plan and declares a threat to state interest, the matter may be referred to the commission for review. If specific criteria are met, the Transportation Commission may appoint a conflict resolution panel to determine solutions based on majority vote of the panel. The panel is comprised of three to five individuals with sufficient expertise to resolve the issue.
Part Five	The Transportation Commission shall direct WSDOT, as a last resort, to pursue purchasing and operating privately owned public use airports or publicly-owned airports of statewide significance threatened with closure.
Part Six	The Commission shall propose state funding for statewide airport system planning and for airport capital and operating expenses in the case of state sponsorship to the legislature as part of the WSDOT budget.
Part Seven	Throughout the implementation program, WSDOT will provide for appropriate involvement with FAA, other state agencies, affected regional and local jurisdictions and the public prior to Secretary declaring a threat to state interest and referring issues of conflict to the Commission.

Implementation of Resolution 477 within current legislative authority was slow to occur and several elements were not adopted by the legislature. Specifically, the declaration of threat to state interest by the Secretary of Transportation and the ability to call a conflict resolution panel together on an issue of statewide importance was not adopted.

Washington Transportation Plan (WTP) 2005-2006 Update

In 1991, the Intermodal Surface Transportation Efficiency Act required each state to prepare a transportation plan and program providing for development, management, and operation of systems and facilities considering all modes of transportation. The plan required that facilities be based on at least a 20-year forecast period and be continually evaluated and updated. The purpose of the WTP is to set statewide policy, establish capital improvement needs and set funding priorities to support the state's transportation needs and facilitate the economy and cross-state mobility of people and goods.

The Washington Transportation Plan (WTP) is also guided by state legislation adopted in 1993, chapter 47.06 RCW "Statewide Transportation Planning". The WTP was first adopted in 1995 and updated in 2001. The 2005 update is currently underway and covers all modes of Washington's transportation system: roadways, ferries, public transportation, aviation, freight rail, passenger rail, marine ports and navigation, bicycles and pedestrians. The WTP is required by state and federal law to be regularly updated. The update currently underway will be adopted by the Transportation Commission in 2005, will cover the period 2007-2026.It will be the basis for an investment proposal to the legislature in 2007.

Plan components will address nine key areas. These include:

- System Preservation
- System Efficiencies
- Safety
- Transportation Access
- Bottlenecks and chokepoints (capacity),
- Contributing to a strong economy and good jobs,
- Moving freight
- Building future visions
- Health and environment

III. Aviation System Plan Defines the System's Future

A lot has changed since the initial adoption of the Washington Aviation System Plan in 1973. Washington's system of airports is an integral part of the overall transportation system, providing a variety of services that are vital to the state, nation and international economy. Scheduled air passenger service allows rapid access to nation and international destinations The state has more than 30 million passengers at the state's scheduled commercial service airports, allowing for rapid access to national and international destinations. Commercial Air service is not only provided by Seattle-Tacoma International Airport and Spokane International Airport, but also by10 other commercial service airports around the state. Air cargo service, which is the fastest growing mode of freight movement, is critical to many industries in Washington. General aviation airports support business, emergency medical and recreational flying at communities throughout the state and are important economic

assets to communities. Growth in demand for aviation services, both passenger and air cargo, continue to outpace other transportation modes.

Over the last 30 years, state and federal legislation has moved aviation system planning from a single independent plan to a significant element within the overall transportation framework. Today, the purpose of the Washington Aviation System Plan is to help guide and facilitate an efficient and dependable aviation system while providing accessibility for people and goods to desired locations. Airline passengers, overnight mail, air cargo, air ambulance, forest fire suppression, emergency services, agriculture, medical facilities, aviation-related business all depend on an adequate network of airports and connections to intermodal transportation services and facilities. The aviation system plan provides the framework for the preservation, enhancement and public investment strategies to the state and federal government to meet current and future aviation needs. The plan determines the number, location and type of aviation facility required to adequately serve the state's aviation needs over the next twenty years.

WSDOT Aviation System Plan Study Team Make Recommendation on the Aviation System

In 2003, WSDOT Aviation undertook a program to examine state aviation interests through the formation of several study teams. The Aviation System Plan Study Team is one of three study teams (System Plan, Education, and Search and Rescue) that provided recommendations on the formation of the strategic business plan, advanced long-range aviation system planning, and developed work programs necessary for implementation.

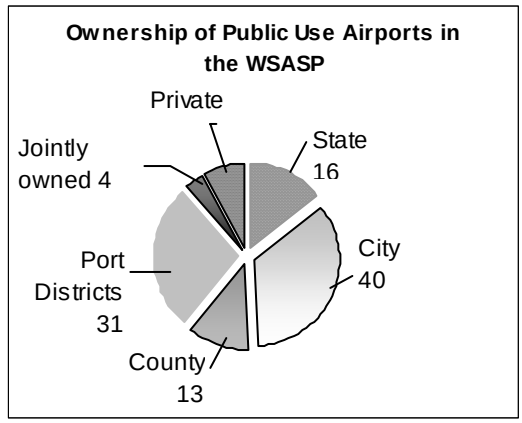
The Aviation System Plan Study Team made the following recommendations:

- Airports of Statewide Significance. That certain transportation issues and airport facilities cross local and regional boundaries and are vital to the statewide economy and the cross-state mobility of people and goods and should be identified as important resources to the State.

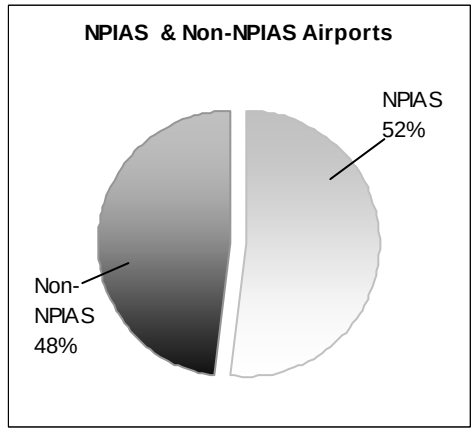
- Intermodal Connections. WSDOT Aviation is a component of the Washington Transportation Plan, which covers all modes of Washington's transportation system and is required by state and federal law to be regularly updated through a continuous aviation system planning process. Opportunities for intermodal connection and filling access gaps are best identified by local agencies. The key vehicle for improving and strengthening intermodal connections lie with the Metropolitan and Regional Transportation Planning Organizations, commonly referred to as MPO and RTPO.

- Public Benefit. Classify airports according to class to increase consistency between FAA, State of Washington, and local aviation policies, rules, and regulations to maximize the value and benefits of public investment by recognizing that different types of airports have different regulatory and policy needs.

- Changing Technologies and Demographics. Assist regional transportation planning organizations, local jurisdictions and airport sponsors to cooperatively integrate important aviation/airport system plan data, capital development needs and emerging aviation system trends and issues into local, region and statewide plans.



Source: WSDOT Aviation Division



Source: WSDOT Aviation Division

IV. Aviation Facilities in our State

There are 505 public and private airports serving general aviation and commercial air carriers in Washington. Of these, 129 airports are within the Washington Aviation System Plan (WASP). Airports within the WASP are all public use airports including 16 airports owned or managed by the state, 40 city-owned airports, 13 county-owned airports, 31 port district-owned airports, and 4 airports owned jointly by cities and counties or between cities. The remaining airports are owned by the private sector.[1] The 2003 Aviation System Inventory revealed that there were eleven additional public use airports. Two of these airports are owned by local jurisdictions.

Within the WASP there are 67 airports that are within the National Plan of Integrated Airport Systems (NPIAS) or approximately 2% of the total NPIAS airports (3,364) identified in the United States. The NPIAS supports FAA's strategic goals for safety, system efficiency, and environmental compatibility.[2]

Thirteen airports have commercial air service. All of these airports are also within the NPIAS. Of the 13 commercial service airports, 7 are owned by port districts, 3 are owned by cities, and 3 are jointly owned by cities and counties. Also, there are 6 reliever airports, which include Auburn Municipal, Boeing Field/King County International, Felts Field, Harvey Field, Renton Municipal, and Snohomish County/Paine Field. Commercial service and reliever airports are eligible for airport improvement funds under current federal legislation. The FAA entitlement funding

[1] Washington Airport System Plan, "2003 Inventory Database, Executive Summary."

[2] FAA Report to Congress National Plan of Integrated Airport Systems (NPIAS), August 28, 2002.

program for primary commercial service airports is based upon the number of enplaned passengers.

The largest airport within Washington State is located within King County, Seattle Tacoma International Airport, and has two primary runways. A third runway has currently received approval with construction beginning in 2004. Spokane International Airport, in Spokane County, is the second largest airport. The shortest runways in the state are emergency airfields operated by WSDOT: Rogersburg Airport located in Asotin County and Lake Sullivan Airport located in Pend Oreille County.

Airport Name	Enplanements
Seatle-Tacoma International	13,184,630
Spokane International	1,423,624
Tri-Cities	204,573
Bellingham International	93,643
Yakima Air Terminal/McAllister Field	73,443
Pangborn Memorial	47,800
Walla Walla Regional	28,542
Pullman/Moscow Regional	28,291
William R. Fairchild International	23,547
Friday Harbor	12,129
Grant County International	11,534
Anacortes*	7,742
Orcas Island	5,595
Total	**15,145,093**

Source: FAA data for 2001 calendar year
* Due to the events of September 11, 2001, and subsequent downturn in the passenger enplanements, FAA has allowed the use of 2000 data in determining primary status. Therefore, Anacortes remains listed as a primary commercial service.

Airport System

Not including taxiways and aprons there is an estimated 115 miles or 608,799 square feet of paved and unpaved airport runways in the state. The majority of airports have paved runways. Paved airports within the state have three different types of surface materials (similar to that of the state highway and local roadway system): Chip seal (also known as Bituminous Surface Treatment or BST), hot mix asphalt pavement, and concrete.

Grant County International Airport has the largest combined runway (three runways) pavement length of 23,502 feet with an overall pavement area of 4,573,700 square feet. Seattle Tacoma International Airport is second with 11,900 feet of combined runway pavement length with an overall pavement area of 3,198,750 square feet. Total pavement areas include the runway, taxiways, and aprons.

V. Washington Aviation System Plan, What Has Been Done and Where Do We Go From Here?

The 2004-2005 Aviation System Plan update is currently underway. The plan will provide a long-range perspective of the state aviation system and include the type and function of public use airports and public investment strategies to meet current and future aviation needs for public-sector investment decisions. The last major update to the Aviation System Plan was conducted in 1993, with minor updates in 1998 and 2001. The 1993 system plan identified several issues that were given special attention. They included:

- Severe constraints on public funds and corresponding increased costs of providing aviation facilities and related services.
- Continuing changes occurring to air carrier and regional airline service in the state.
- Need to identify and measure the importance of air transportation services to the State's economic development.
- Need to guard against unnecessary duplication of aviation facilities.
- Need to protect the existing airport system investment by effective use of Local, State and Federal funds.
- Need for better information about the level and type of aircraft activity at Washington airports.
- Need to coordinate with local units of government to assure compatible land use zoning around airports and heliports.

Aviation System Plan Components

The state's aviation system plan is comprised of several supporting documents and special studies that are continuously updated through the Aviation System Planning Program. Some of the documents and special studies are as follows:

Washington State Aviation Policy Plan

In 1998, the Transportation Commission adopted four policies to define the state interest in aviation:

- Preservation -- It is the State's interest to preserve aviation facilities and services that provide access for all regions of the state to the nation's air transportation system, provide for emergency management, and support local economies.
- Safety -- It is the State's interest that transportation by air be safe.
- Capacity -- It is the State's interest that there be sufficient airport capacity to respond to growth in demand to ensure access across the state, the nation and the world.
- Environmental -- It is the State's interest that negative environmental impacts of airports on people and the natural environment be mitigated.

Aviation Freight Mobility

In 1998, WSDOT Aviation conducted the first freight mobility study. The study found that in 1996 over 66 percent of the state's airfreight shipments were through Sea-Tac International Airport. Boeing Field/King County International and Felts Field in Spokane accounted for 22 percent of the freight. The remaining freight shipments were split between 12 other airports across the state. Airfreight is anticipated to grow ten-fold in the next twenty years.

Land Use Compatibility

The land use compatibility component has been a significant part of the aviation system planning process since 1945 with the adoption of chapter 14.12 RCW by the state legislature. Provisions within this section gave broad authority to local governments to adopt height hazard zoning regulations to control structure heights that may penetrate critical airspace adjacent to airports. In 1991, after the passage of the Growth Management Act (GMA) in 1990, WSDOT Aviation developed land use compatibility guidelines to protect public use airports from the encroachment of incompatible development adjacent to airports. The guidelines provided local communities, planners, airport managers and other interest groups with techniques to assit in protecting airports from incompatible development. In 1998, WSDOT revised the guidelines to address passage of Senate Bill 6422, which required towns, cities and counties to adopt comprehensive land use policies and supporting development regulations to protect public use airports from incompatible development.

Pavement Conditions Assessment

WSDOT Aviation works with the FAA and airport sponsors to conduct a pavement conditions evaluation at public use airports across the state. The pavement conditions analysis is conducted every three to four years and help airports, the state, and the FAA to allocate resources for maintaining and preserving Washington's airports. The desired pavement condition is 70 PCI or above. A 70 PCI rating is ideal because pavement maintenance is the least expensive options for pavement preservation. PCI of less than 70 begins to deteriorate at a much faster rate and maintenance/rehabilitation costs exculpate dramatically. The last pavement conditions assessment included a total of 89 airports and was completed in December of 2000.

Airport Economic Impact Analysis of Washington Airports

Aviation plays a major role in the state economy and while airports facilitate commerce, they also serve as economic engines and their direct, indirect and induced benefits accrue throughout the rest of the community as well. Findings of the 2001 WSDOT Aviation Forecast and Economic Analysis Study found the combined total for all airports in the system generated 171,311 jobs, over $4 billion in wages and exceed $18.5 billion in annual sales output.

Rural Airport Study

The Rural Airport Study was a special study to determine the benefits that rural airports contributed to their community and the state. The study, completed in 2002, revealed that rural airports play a significant role in economic development, health care and medical supplies to rural hospitals, emergency medical services, disaster and emergency response, and access to remote communities.

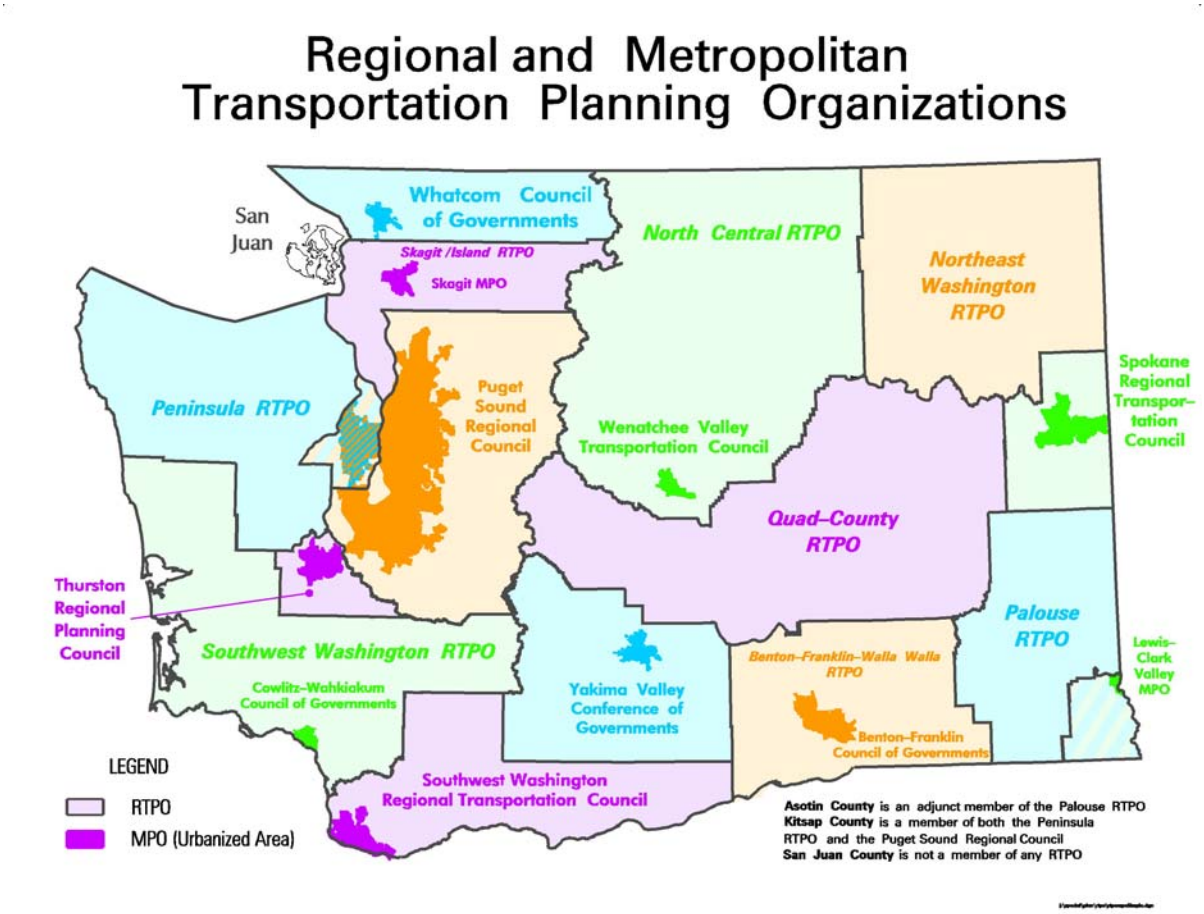
Aviation System Plan Database Inventory

The aviation system plan database inventory was last updated in 2003. The inventory has up to date data on most public use airports in the state and contains information on existing and future forecasts on the type and function of the airport, lighting, navigational aids, obstructions, based aircraft, operation levels, capital facilities, existing runway length and width, airport deficiencies and gaps, capital facility needs and other related information. The aviation system plan inventory is updated every five years and is accessible on the web.

VI. Where Do We Go From Here?

The Aviation System Plan is a blueprint to the future of aviation within Washington State. It is intended to guide the physical development of the state's airport system and promote efficiencies within the transportation system for the next 20 years. The system plan provides a sense of direction, a broad overview of where the aviation system is today (existing conditions), and a sense of where it is going (future desires). Plan recommendations will enable federal, state, regional and local jurisdictions to make informed decisions on state and local interests. To meet this task and the recommendations of the 2003 Aviation Study Team, the system plan must be developed in a manner that is consistent with the Washington Transportation Commission and Aviation policy objectives.

Therefore, when considering the update of the Aviation System Plan, it is important to recognize national, state and local aviations interests. The strength of the plan is the consideration of all interests and balancing those interests with the fundamental elements of the system plan. The Aviation Work Group, RTPOs, MPOs, Aviation Advisory Committee, the State, Federal governments and communities are all key players in this balance and share responsibility in developing an integrated aviation system plan.


Regional and Metropolitan
Transportation Planning Organizations
San Juan
Whatcom Council of Governments
Skagit /Island RTPO
Skagit MPO
North Central RTPO
Northeast Washington RTPO
Spokane Regional Transportation Council
Peninsula RTPO
Puget Sound Regional Council
Wenatchee Valley Transportation Council
Quad–County RTPO
Thurston Regional Planning Council
Southwest Washington RTPO
Cowlitz–Wahkiakum Council of Governments
Yakima Valley Conference of Governments
Benton–Franklin–Walla Walla RTPO
Benton–Franklin Council of Governments
Palouse RTPO
Lewis–Clark Valley MPO
Southwest Washington Regional Transportation Council
LEGEND
RTPO
MPO (Urbanized Area)
Asotin County is an adjunct member of the Palouse RTPO
Kitsap County is a member of both the Peninsula RTPO and the Puget Sound Regional Council
San Juan County is not a member of any RTPO